

**Work Order ID 69046**

Wednesday, April 27, 2011 11:25:28 AM



Page 1

Item ID: D3391-023

Revision ID:

Item Name: Mid Tube Assembly

Start Date: 4/27/2011 Start Qty: 1.00

Required Date: 5/3/2011 Req'd Qty: 1.00

Reference:

Approvals:

Process Plan:

QC:

Date: 104-27 Tooling:

Date:

SPC (Y/N):

Date:

Date:

Setup Start

Stop

Run Start

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D3391	Rev H

100 0.00

Skidtubes
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Skidtubes	Memo	0.00	8E 11/05/10
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Skidtubes	1-Cut tube to finish length as per Dwg D3391	11-05-06	8E 11/05/10
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	2-Identify as D3391-023	11-05-06	8E 11/05/10
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	3-Drill pilot holes using DT8796 (Do not drill "B" holes) and drill only 1 fwd saddle hole on one side only as per Dwg D3391	11-04-06	8E 11/05/10
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	4-Open saddles and GHW holes to Ø0.375" except for fwd saddle hole of detail "J"	11-04-06	8E 11/05/10
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	5-Remove .030" from Fwd indexing Ridge as per Dwg D3391	11-04-06	8E 11/05/10
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	6-Remove indexing ridge on Fwd & Aft end of skidtube as per Dwg D3391	11-04-06	8E 11/05/10
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	7-Deburr	11-04-06	8E 11/05/10
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	8-Drill #30 pilot holes using wearplate Jig DT8217 Identify Ø0.250" holes with paint marker,	11-04-06	8E 11/05/10
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	9-Open wearplate holes of D3391-023 assembly detail section G-G to Ø0.250" (14 holes) as per Dwg D3391 and 2 holes in section Detail "J", do not open wearplate holes of section "J"	11-04-06	8E 11/05/10
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	10-Open wearplate holes of D3391-023 assembly detail section H-H to Ø0.297" (20 holes) as per Dwg D3391	11-04-06	8E 11/05/10
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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3391-023 PAR #: N/A Fault Category: Skid tubes  
Handling Gear  
Resolution: Scrap Disposition: Scrap NCR: Yes No DQA: M Date: 11/06/09  
QA: N/C Closed: ✓ Date: 11/04/10

NCR: 69046		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
11/05/16	# 100,5	When Removing the inner indexing Ridge operator had the Bernzoy tool at <del>an</del> angle and removed too much mat. R.C. Improper use of tools.	11/05/16	-Ridge is all most all removed and is too thin Scrap + Destroy + Reprime B# <u>50261</u>	8/5 11/05/16	11-5-16	11/05/16 QS1042	8 11/05/16
		Lack of attention						

NOTE: Date & initial all entries

**Work Order ID 69046**

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Item ID: D3391-023

Accept



Setup Start



Revision ID:

Item Name: Mid Tube Assembly

Stop



Start Date: 4/27/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 5/3/2011 Req'd Qty: 1.00



Customer:

Reference:

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start
	QC:	Date:	SPC (Y/N):	Date:	Stop	



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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11-Open .375" holes to .438" \*\*\*do not open fwd saddle holes\*\*\*

12-Locate D3391-021 in D3391-023 at 9.00" (see view:z-z)

13- Transfer drill one fwd saddle hole only to .188" dia, transfer drill all remaining fwd saddle holes using DT 8149 locating from previously drill .188" dia hole, using t-pins and clicos to ensure perfect alignment, open up previously transfer drilled pilot holes in D3391-023/-021 to 0.438" dia. in D3391-021

14- Transfer drill 2 wearplate holes into D3391-021 using DT8217, locating from two previously drilled holes, drill remaining wearplate holes into D3391-021.

15- Locating from two fwd wearplate holes drill remaining 6 wearplate holes in D3391-021 using DT8937

16- Open 2 fwd wearplate holes in D3391-023 to .250" dia.

17- counterbore two aft wearplate holes in D3391-021 as per dwg

18- Open 12 wearplate holes in D3391-021 to 0.297" dia.

19-Deburr and blow out all chips from inside tube

BE/11/06/10

116-1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

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Item ID: D3391-023

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Revision ID:

Item Name: Mid Tube Assembly

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Start Date: 4/27/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 5/3/2011 Req'd Qty: 1.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center IDOperation  
Description

110



QC5- Inspect part completeness to step on W/O

QC  
Quality Control

120



Chemical Conversion Coat per QSI005 4.1

HandFinish  
Hand Finishing

130



QC3- Inspect Part Finish

QC  
Quality ControlSet Up/  
Run Hours

0.00

0.00

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

S u b o b z

0.00

0.00



B 11/06/02

0.00

0.00



11-6-3

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

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Revision ID:

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Start Date: 4/27/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 5/3/2011 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

140



Skidtubes

Skidtubes

0.00

1

Skidtubes

Memo

0.00

Skidtubes

- 1-Open float bag holes as per dwg
- 2-C'sink float bag holes as per dwg
- 3- Prepare tube for welding
- 4-Bond web in place as per Dwg D3391 & QSI 015.  
Adhere for 12 hours)

A/R Sikaflex exp: ~~11/06/15~~ 12/01/15  
batch#: ~~116945~~ 116945

150



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

1

BB 11/06/03

1

BB 11/06/08

1

D 86 11/06/06

160



Skidtubes

Skidtubes

0.00

1

D

86 11/06/06

Skidtubes

Memo

0.00

- 1-Weld crossbolt spacer as per dwg D3391 & QSI 004
- 2-grind weld flush

A/R M117456

D 11-6-0

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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**Work Order ID 69046**

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Item ID: D3391-023

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Start Date: 4/27/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 5/3/2011 Req'd Qty: 1.00



Customer:

**Reference:**

Approvals: Process Plan: \_\_\_\_\_

Date: \_\_\_\_\_

Tooling: \_\_\_\_\_

Date: \_\_\_\_\_

Run Start



QC: \_\_\_\_\_

Date: \_\_\_\_\_

SPC (Y/N): \_\_\_\_\_

Date: \_\_\_\_\_

Stop

**Sequence ID/  
Work Center ID****Operation  
Description****Set Up/  
Run Hours****Tool ID****Tool #****Plan  
Code****Accept  
Qty****Reject  
Qty****Reject  
Number****Insp.  
Stamp**

170



QC

Quality Control

QC10- Inspect visual per QSI004- ground welds

0.00

Sulob606

180



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Sulob606

185



HandFinish

Hand Finishing

Pressure Wash per QSI005 4.3

0.00

Memo

0.00

AND REALODINE AS PER PAR09-043

R S M-f 11/06/06

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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**Work Order ID 69046**

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Item ID: D3391-023

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Setup Start



Revision ID:

Item Name: Mid Tube Assembly

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Start Date: 4/27/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 5/3/2011 Req'd Qty: 1.00



Customer:

Reference:

Approvals:

Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

210



Skidtubes

Skidtubes

0.00

1 6 166102

Memo

0.00

✓ 1- insert D3391-021 into D3391-23

✓ 2- insert T-pins into first and third fwd saddle holes

✓ 3- ON FIRST SIDE ONLY drill out 2nd and forth fwd saddles holes to 0.500" as per DSI 9364

✓ 4- remove T-pins and locate DT9415 from first and third crossbolt hole using T-pins and clekos

✓ 5- ON 2ND SIDE ONLY ream out 2nd and forth saddle hole to 0.499". Remove DT9415

✓ 6- deburr, re-alodine and blow out chips

✓ 7- press fit D3591-1 spacers using DT9416 starting from 0.500" side

220



QC5- Inspect part completeness to step on W/O

0.00

QC

Memo

0.00

S. W. 66102

Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

**Work Order ID 69046**

Wednesday, April 27, 2011 11:25:28 AM



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Item ID: D3391-023

Accept



Setup Start



Revision ID:

Item Name: Mid Tube Assembly

Stop



Start Date: 4/27/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 5/3/2011 Req'd Qty: 1.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

230



HandFinishing

0.00

1 φ Il uolo 2

HandFinish

Memo

0.00

Hand Finishing

Install Inserts as per Dwg

240



QC5- Inspect part completeness to step on W/O

0.00

8 wolo 7

QC

Quality Control

Memo

40 \_\_\_\_\_

250



Identify as per dwg &amp; Stock Location: 1016

0.00

D412-742-043 / 1364241

Packaging

Packaging

Memo

0.00

1 φ Il uolo 6

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

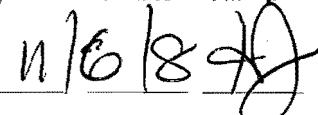
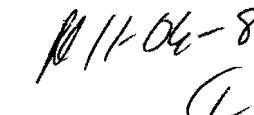
NOTE: Date & initial all entries

**Work Order ID 69046**

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Wednesday, April 27, 2011 11:25:28 AM

Item ID:	D3391-023		Accept			Setup	Start				
Revision ID:											
Item Name:	Mid Tube Assembly								Stop		
Start Date:	4/27/2011	Start Qty:	1.00		Cust Item ID:						
Required Date:	5/3/2011	Req'd Qty:	1.00		Customer:						
Reference:											
Approvals:	Process Plan:	Date:	Tooling:	Date:			Run	Start			
	QC:	Date:	SPC (Y/N):	Date:			Stop				

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
260  QC Quality Control	QC21- Final Inspection - Work Order Release	0.00							
	Memo	0.00							

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

# Picklist Print

Wednesday, April 27, 2011 11:25:34 AM

Page 1

Work Order ID: 69046



Parent Item: D3391-023



Parent Item Name: Mid Tube Assembly

Start Date: 4/27/2011

Required Date: 5/3/2011

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP A 05.10.20 New Issue KJ/EC  
 IPP B 06.02.10 ECN773 dwg rev.D EC  
 IPP C 07.03.20 rev F dwg EC  
 IPP D 07.03.28 re-format EC  
 IPP E 07.10.31 ecn 1053P EC  
 IPP Rev:F ECN 1056 07-11-13 DD verified by: EC  
 IPP Rev:G 08-09-08 new process (ecn 08-510) DD verified by:EC  
 IPP Rev:H 08-09-10 revH as per dwg DD verified by:EC  
 IPP Rev: I 08-11-13 Removed steps per w/o, QC KJ verified by: ec IPP  
 Rev:J add in seq 140 expire date & sikaflex DD 10.02.17 verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2500-1-100		Manufactured	No			100	Each	96.0000	1	1			

Skidtube Extrusion

			Location	Loc Qty	Loc Code	
			HALL	96		
				14		
				82		

D3391-021		Manufactured	No	100	Each	0.0000	1	1	
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Fwd Tube Assembly

D3389-1		Manufactured	No	140	Each	0.0000	1	1	
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Web

D3681-1		Manufactured	No	160	Each	9.0000	5	5	
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Spacer

Location	Loc Qty	Loc Code
LG001	9	
65990	9	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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# Picklist Print

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Work Order ID: 69046



Parent Item: D3391-023



Parent Item Name: Mid Tube Assembly

Start Date: 4/27/2011

Required Date: 5/3/2011

Start Qty: 1.00

Required Qty: 1.00

D3591-1

Manufactured

No

210

Each

59.0000

2

2



41 106107

Bushing

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

ST068

59

Y2

57350

22

Y2

66147

37

ALS4-1032-130

Purchased

No

230

Each

1,784.000

20

20



41 106107

Insert

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

ST281

1784

Y20

117331

1784

Y20

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

SHOP COPY  
RETURN TO  
ENGINEERING

UNCONTROLLED COPY

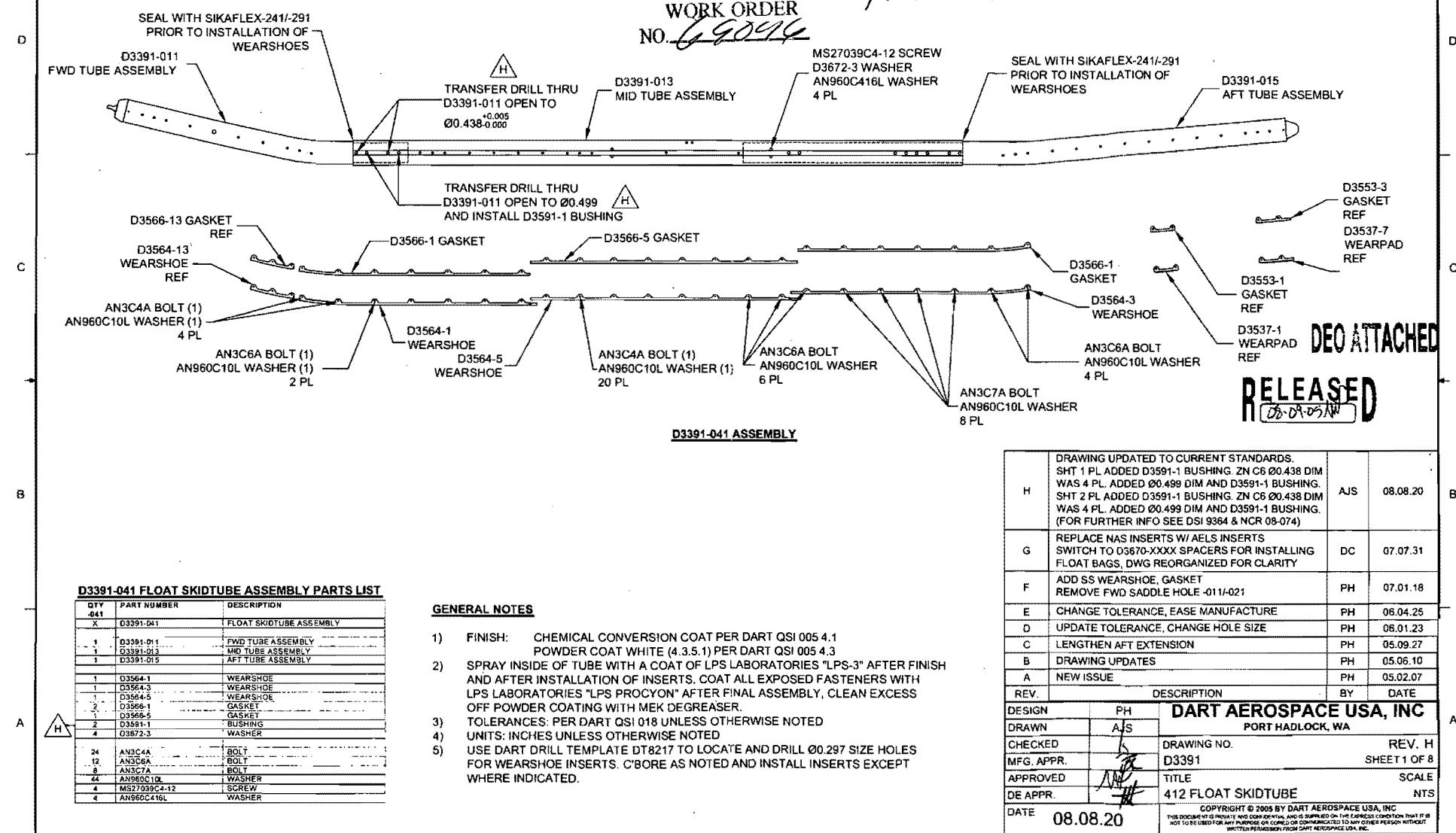
SUBJECT TO AMENDMENT

WITHOUT NOTICE

WORK ORDER

NO. 69041

PL 11-04-27



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

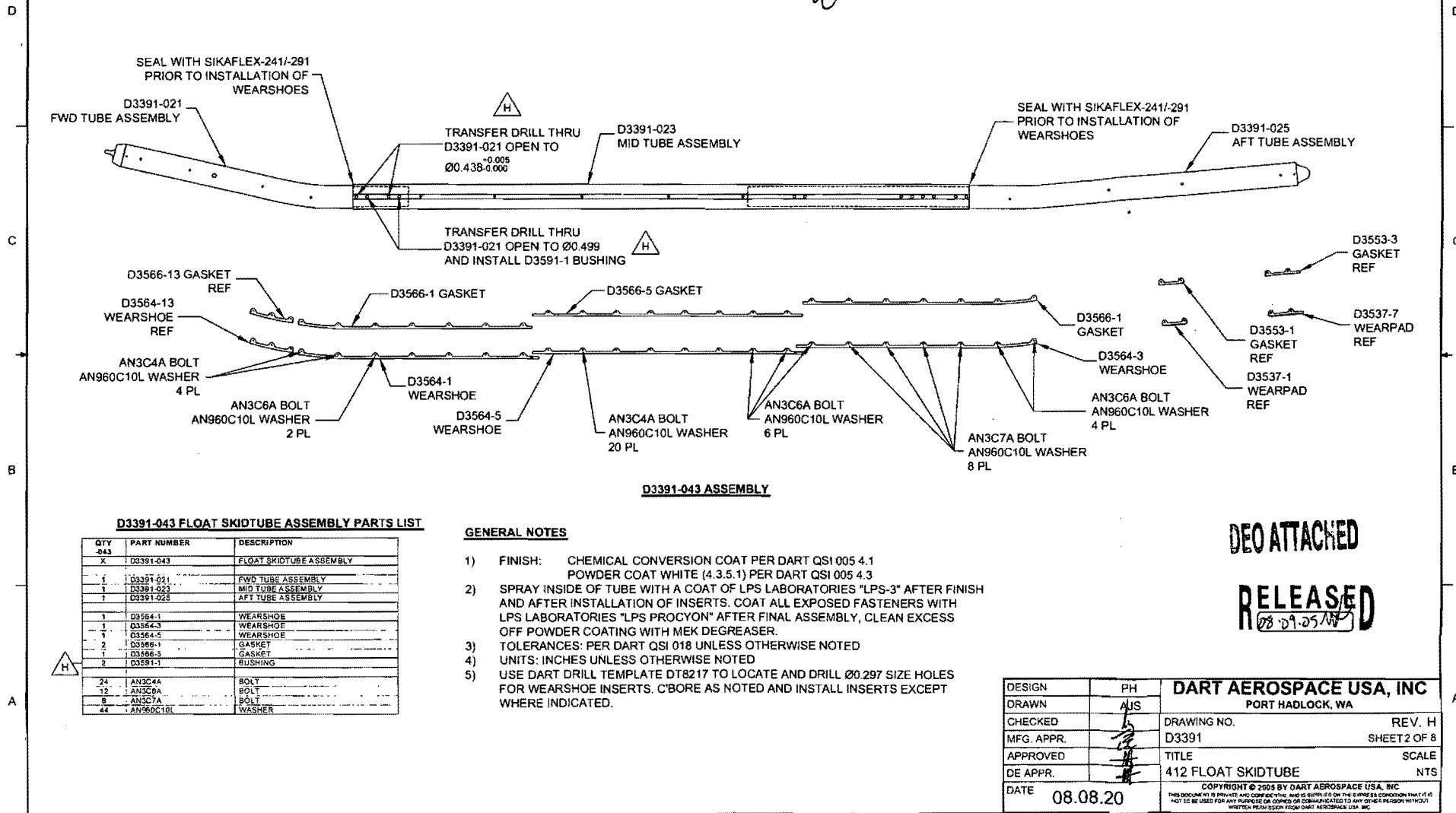
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

8 7 6 5 4 3 2 1

W/0 68046

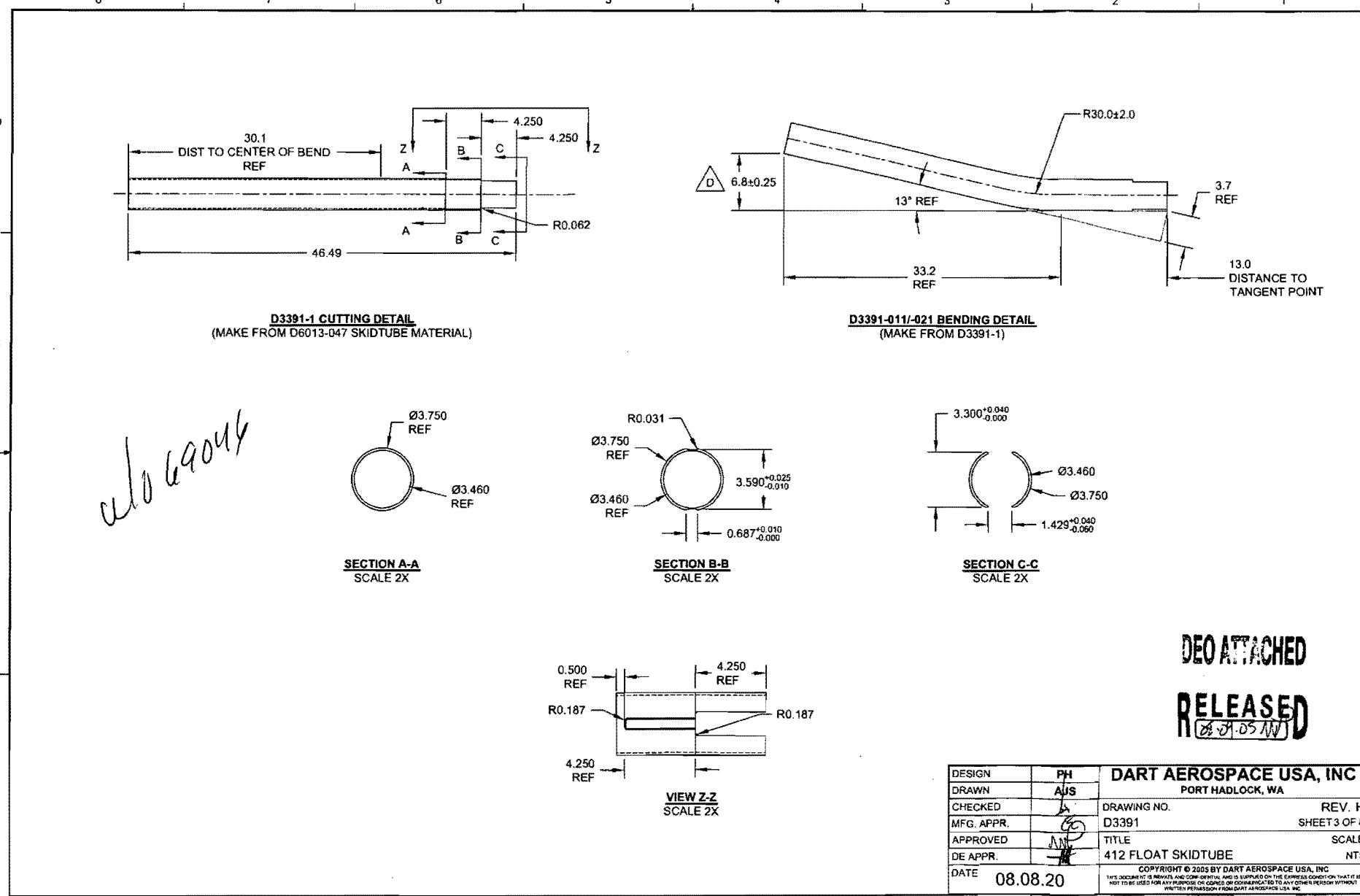


W/O:		WORK ORDER CHANGES					
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 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

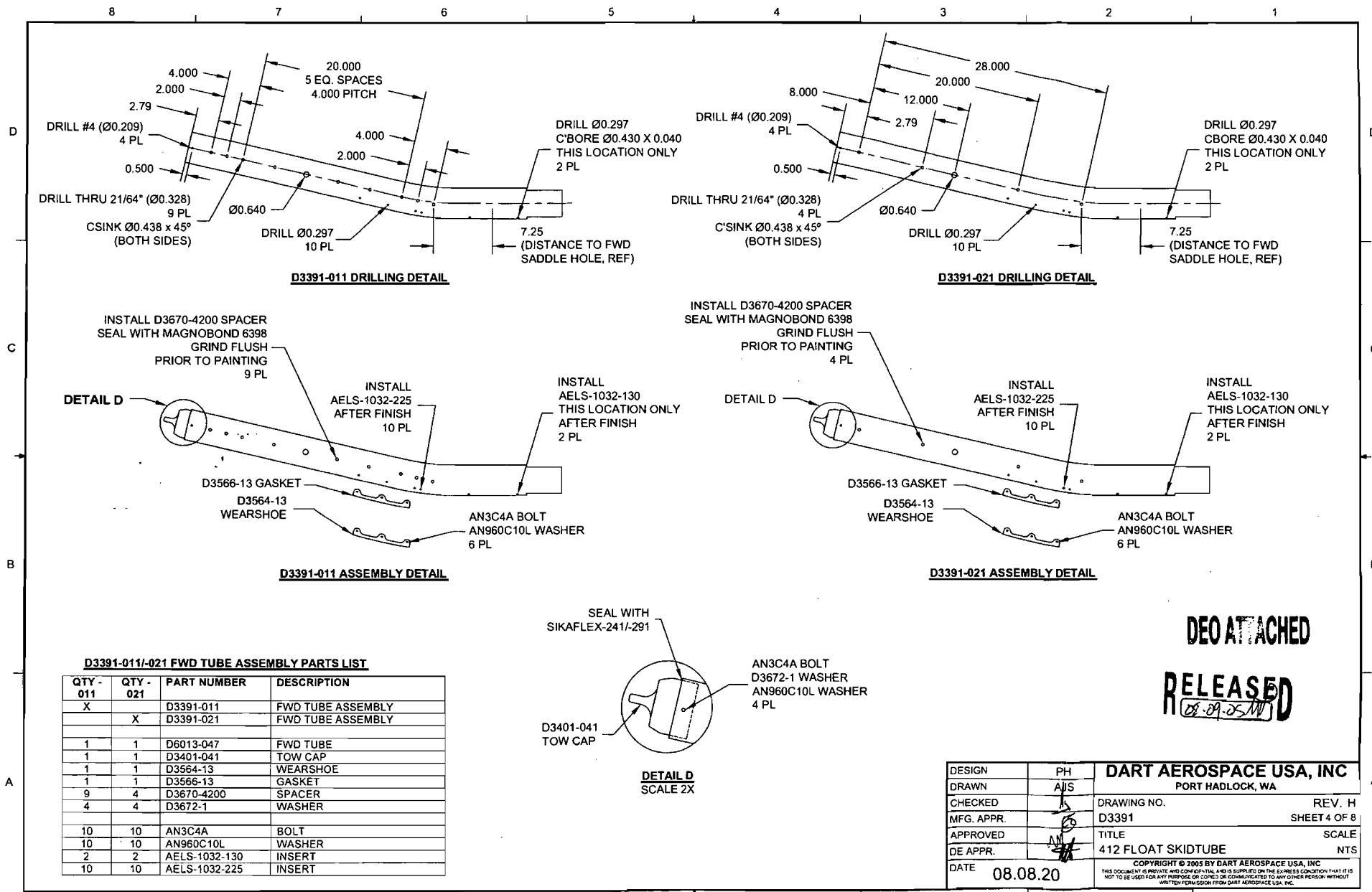
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

W0620244



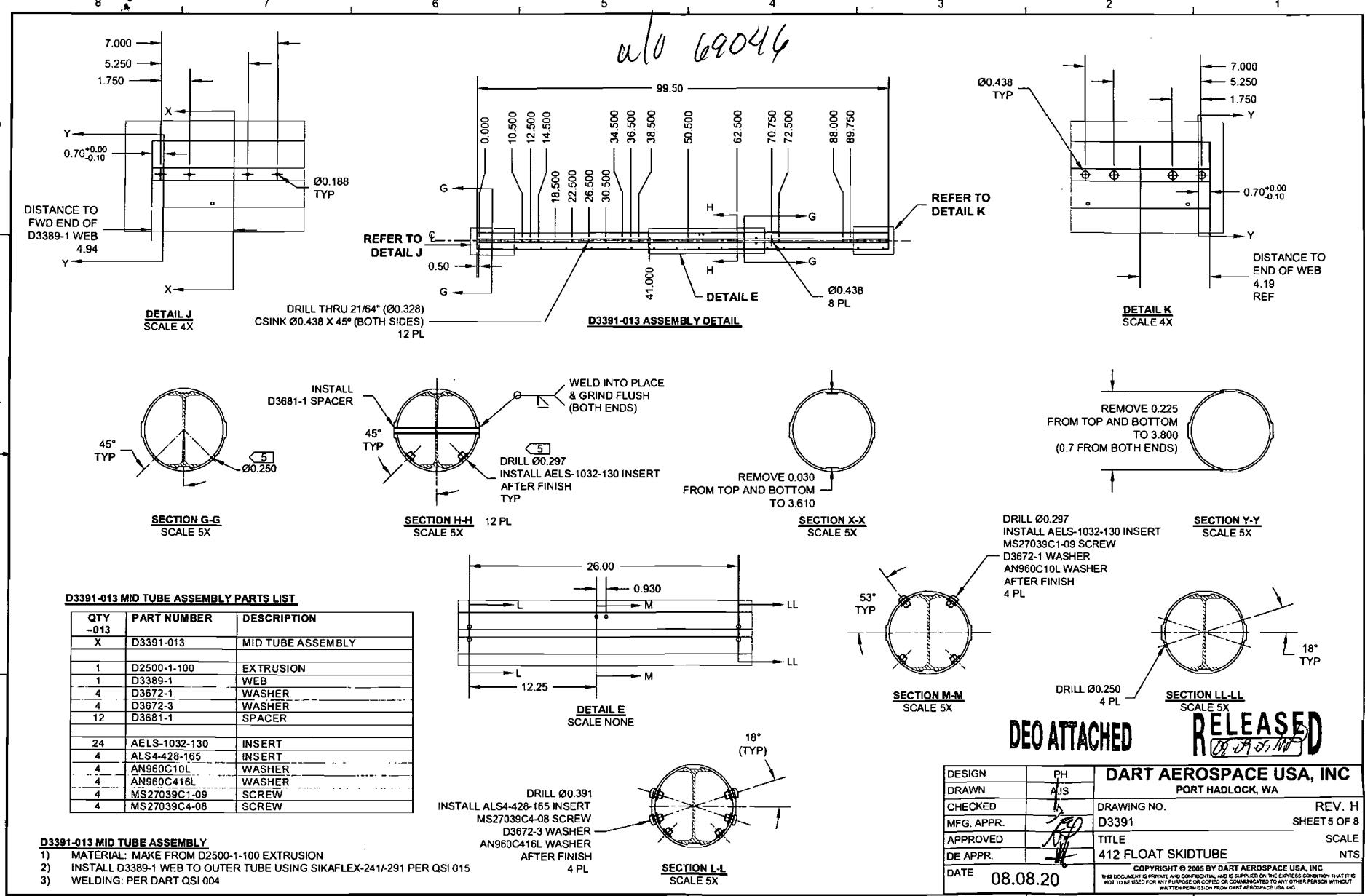
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries



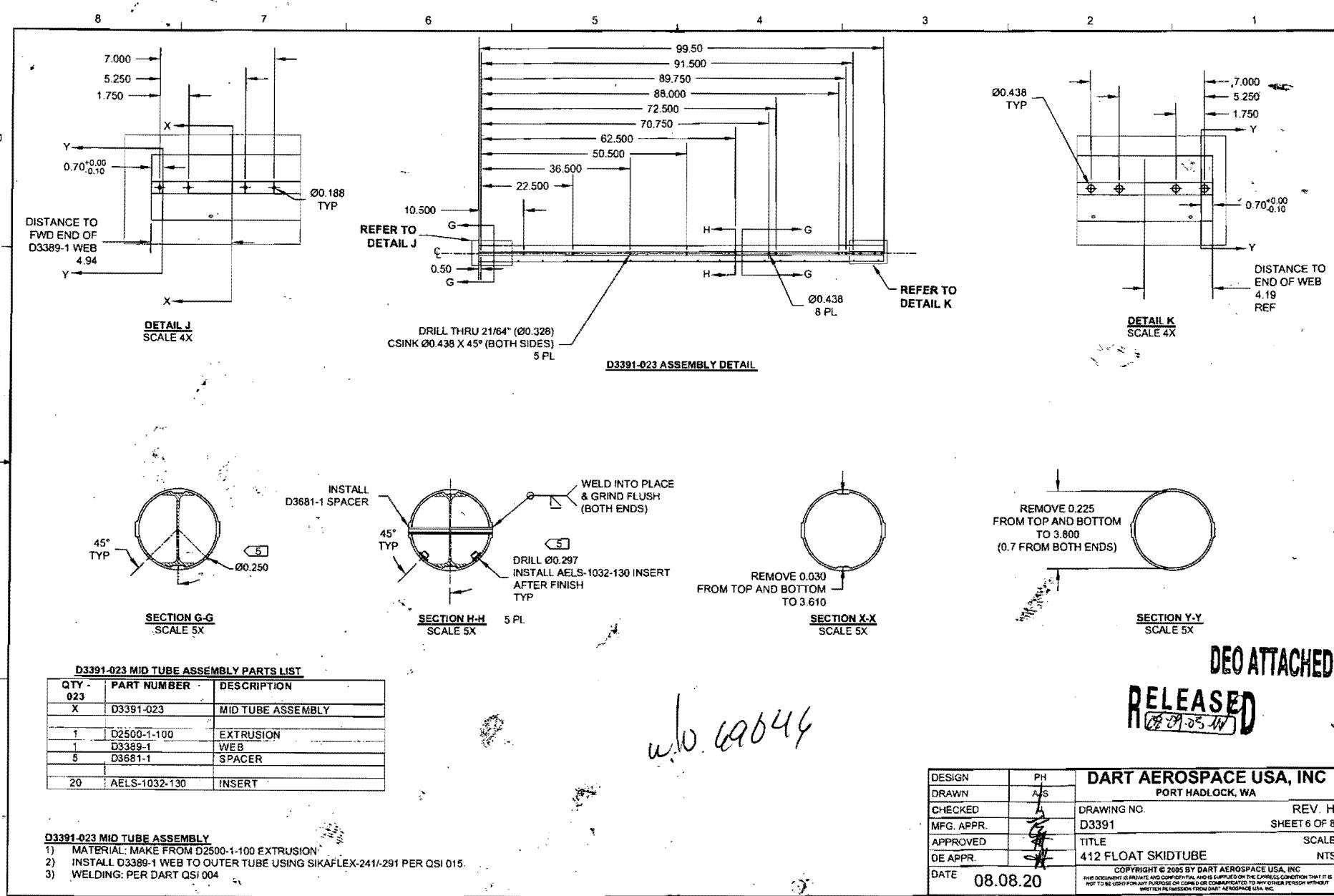
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



u.b.69644

DEO ATTACHED

RELEASED  
07-24-05 M

29.05.14

DESIGN	PH	DART AEROSPACE USA, INC	
DRAWN	A/S	PORT HADLOCK, WA	
CHECKED	A	DRAWING NO.	REV. H
MFG. APPR.	A	D3391	SHEET 6 OF 6
APPROVED	A	TITLE	
DE APPR.	A	412 FLOAT SKIDTUBE	
DATE	08.08.20	NTS	

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THE WRITTEN CONSENT OF DART AEROSPACE USA, INC.

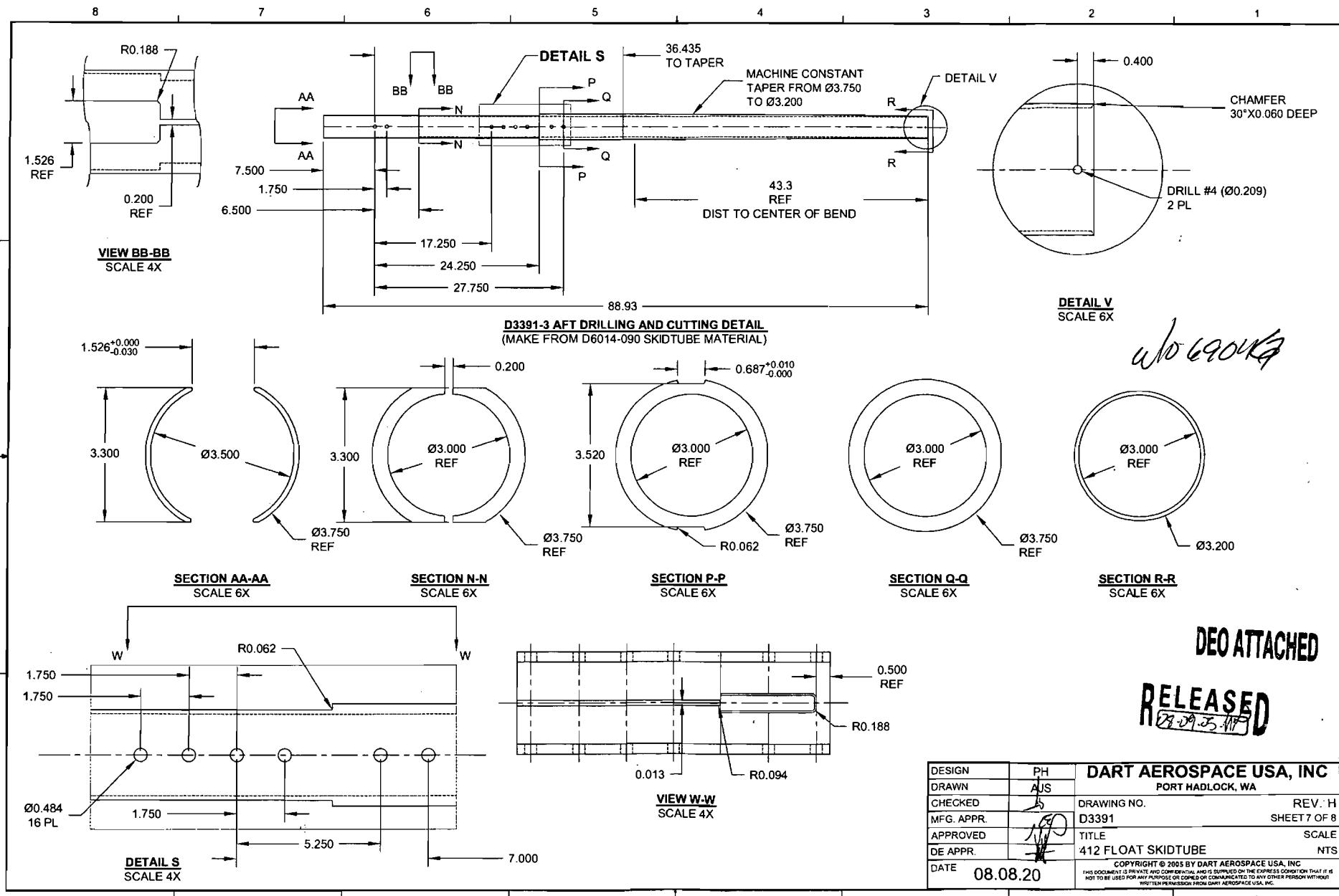
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



**DEO ATTACHED**

RELEASED  
28-09-05 110

DESIGN	PH	DART AEROSPACE USA, INC		
DRAWN	AJS	PORT HADLOCK, WA		
CHECKED	<i>150</i>	DRAWING NO.	REV. H	
MFG. APPR.	<i>150</i>	D3391	SHEET 7 OF 8	
APPROVED	<i>150</i>	TITLE	SCALE	
DE APPR.	<del>150</del>	412 FLOAT SKIDTUBE	NTS	
DATE	08.08.20	COPYRIGHT © 2005 BY DART AEROSPACE USA, INC		
THIS DOCUMENT IS THE PROPERTY OF DART AEROSPACE USA, INC. IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT				

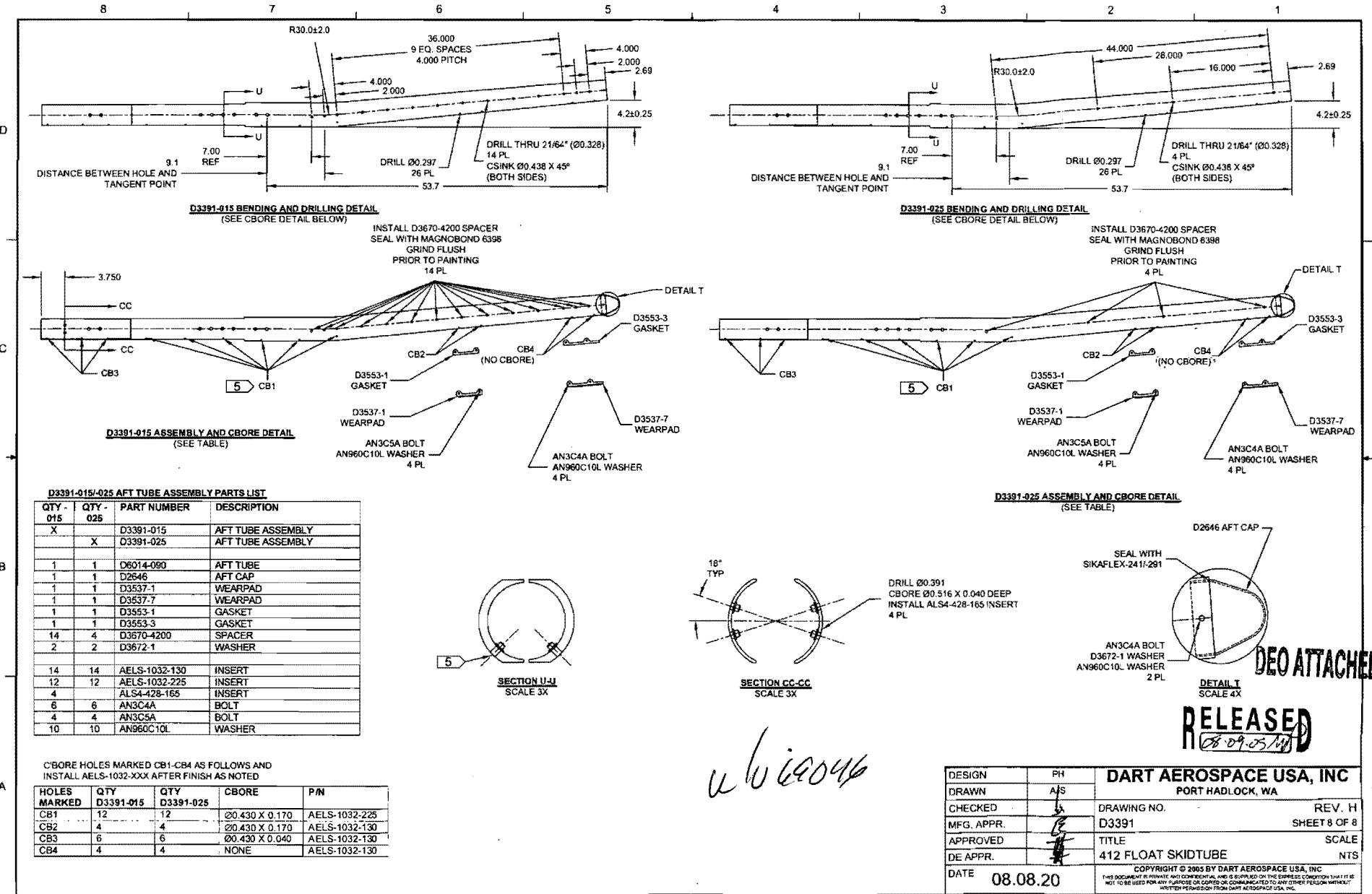
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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NOTE: Date & initial all entries

DRAWING NO. D3391	TITLE 412 FLOAT SKIDTUBE	REV. H	DART AEROSPACE USA, INC ENGINEERING ORDER	D.E.O. NO. D3391-H-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>DP</i>	CHECKED <i>AA</i>	MFG. APPR. <i>AA</i>	APPROVED <i>MP</i>	DE APPR. <i>MP</i>		
DATE 09.09.23	DATE 09.09.24	DATE 09/09/25	DATE 09/09/30	DATE 09/09/30	DATE 09/09/30	

PURPOSE:

LPS-3 IS NO LONGER USED DURING ASSEMBLY OF D3391-041/-043 SKIDTUBES.

CHANGE:

AMEND NOTE 2 OF D3391-041/-043 SKIDTUBE ASSEMBLIES (ZN A6-1, A6-2) AS FOLLOWS:

2) ~~SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH  
AND AFTER INSTALLATION OF INSERTS.~~ COAT ALL EXPOSED FASTENERS WITH  
LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS  
OFF POWDER COATING WITH MEK DEGREASER.

**RELEASED**  
2010-02-02

*MP*

*u6 69846*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

NO. 4250

AWS D17.1.2001  
QUALIFICATION TEST RECORD

Name: Barclay Elliott  
Job number: 62679  
Part number: D3391 - 023  
Description: 3391  
Welding Process: Tig  Mig   
Base materiel:  
Current: AC  DC

TEST REQUIREMENTS AND RESULTS

Visual: pass  fail   
Penetration: pass  fail

UNACCEPTABLE

Cracks: pass  fail   
Undercut: pass  fail   
Pin holes: pass  fail   
Overlap (cold lap): pass  fail   
Porosity (surface): pass  fail   
Coloration: pass  fail

Qualifier J. Stevens Date of Test Coupon 11-04-28

Welder Barclay Elliott Date of Test Coupon 11-04-28

The above named individual is qualified in accordance with AWS D17.1.2001 to weld

